



**AMERICAN
EUROCOPTER**
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Vehicle Engine Multifunction Display (VEMD) Summary Report

(Updated on 16 December 2013 - Please disregard previous versions)

NTSB Accident # WPR14LA038
Eagle Air Med, AS350B3, S/N 3332, N985EW
Kona, Hawaii; 29 October 2013

VEMD Information:



Date, Time, and Location of VEMD Exam:

1. Initially; the VEMD was reportedly reviewed in the field, near the accident site location on the 30th of November, 2013.
2. The follow up exam to the engine and the FADEC at TMUSA, included the review of the VEMD at American Eurocopter in Grand Prairie, TX on the 12th of December, 2013.

VEMD Exam Participants:

- Seth Buttner, American Eurocopter
- Lindsay Cunningham, American Eurocopter
- Bryan Larimore, Turbomeca USA
- Mike Hemann, FAA Rotorcraft Directorate
- Mike Ledford, Director of Maintenance, Air Medical Resource Group

VEMD Examination:

The VEMD was installed on a training bench at AEC on 12 December 2013, and power was applied (this procedure does not compromise the integrity of the data stored on the VEMD). The flight report completed for the mishap flight was determined to be flight # 2644 (the first viewed flight report when entering the Flight Report mode). The duration of the flight was 0 hours, 21 minutes (rounded up to nearest minute), accruing 1.06 NG cycles and 0.69 NF cycles during the flight. No Overlimits or Failures were detected for the subject flight.



Flight Report Page for Mishap Flight # 2644

The previous Flight Reports listed the flight times as:

- # 2643, duration of the flight was 0 hours, 02 minutes
- # 2642, duration of the flight was 2 hours, 35 minutes
- # 2641, duration of the flight was 0 hours, 50 minutes
- # ...

Failure Diagnosis Summary

There were no Failure Diagnosis Summaries found for Flight # 2644.

The first flight profile with a failure when entered in to the FAILURE Mode was a “flight” profile (# 2645) that was created; after the mishap flight, a summery report diagnosis identifying 6 ‘failures’ for the non-flight. This flight and these failures are with no time associated with it. (Note: Turning the unit on while on the ground or on the test bench after the mishap flight typically generates a consecutive flight number). It reported 0.00 hour, and 0.00 minutes. Failure and overlimits were recorded as: “72 OUT OD RNG T4-R Left lane”, “60 OUT OF RNG EDT Left lane”, “72 OUT OD RNG T4-R Right lane”, “57 OUT OF RNG NR Left lane”, “68 OUT OF RNG EDT Right lane”, and “57 OUT OF RNG NR Right lane”

The *Failures* recorded for the Non-flight (# 2645) were as follows:



Continue on next page...

Continued; The *Failures* recorded for the Non-flight (# 2645) were as follows:



Then next most recent flight with a Failures Report observed; was, Flight # 2639, with 6 failures listed. These failures were similar to Flight # 2645, likely from the unit being turned on while on the ground or during maintenance work after a flight, reporting 0.00 hour, and 0.00 minutes.

Overlimit Diagnosis Summary

The Overlimits recorded for the accident flight (#2644) were as follows:

OVER LIMIT 2644						
	TIME	LIMIT	MAX			
TRD	000 aa 00	>TRD TRA		000 %	P ₃	↑
	000 aa 00	>TRD MED				
	000 aa 00	>TRD EXT				
T4	000 aa 00	>T4 LBU	000 °C	000 °C	-	↓
	000 aa 00	>T4 MED				
	000 aa 00	>T4 HI				
NG	000 aa 00	>NG HNT	000.0 %		+	↓
	000 aa 00	>NG TRA				
NF	000 aa 00	>NF TRA	000 RPM			
	000 aa 00	>NF EXT				
NR	000	000	000	000	000	RPM

There were no overlimits for the subject flight. A few of the next most recent flights were checked for any Overlimits generated. None were found, i.e.:

2643, None
 # 2642, None
 # 2641, None
 # 2640, None
 # 2639, None
 # 2638, None
 #...

Summary:

No anomalies were noted for the subject flight, or any of the recent reports generated by flights found on the VEMD that would have precluded a normal flight at the time of the mishap event.